



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

FEB 16 2012

Mr. John S. Howard, Plant Manager
FirstLight Power Resources
Northfield Mountain Station
90 Millers Falls Road
Northfield, MA 01360

Re: Northfield Mountain Pumped Storage Project (FERC No. 2485)
Sediment Management Plan – Proposed Technical Changes to Sampling Methodology

Dear Mr. Howard:

EPA has received and reviewed FirstLight Power Resources' ("FirstLight") December 22, 2011 submission of the above-referenced document. The document was supplemented by a copy of FirstLight's December 1, 2011 submission of the bathymetric survey and turbidity monitoring data collected during 2011 to FERC. The document calls for the continuation of bathymetric surveys of the upper reservoir to assess sediment deposition and continuous monitoring of total suspended solids at the intake to the Northfield Mountain Pumped Storage Facility and at the Turner's Falls pool to assess total suspended solids ("TSS") levels during a range of operating conditions.

Page 8 of the Updated Plan reiterates the potential future options to include, among other things, the periodic dredging of the upper reservoir and changes to the frequency, rate, or magnitude of upper reservoir drawdowns to avoid future problems. EPA reiterates its position regarding the increased frequency of drawdowns that was stated in its June 10, 2010 (sic) letter. It also reiterates its recommendation that FirstLight also evaluate the feasibility of the installation of a physical barrier across the bottom of the intake channel designed to prevent the migration of sediments during future drawdowns of the upper reservoir required to facilitate repairs.

EPA's specific comments on the proposed sampling plan are as follows:

1. A Quality Assurance Project Plan ("QAPP") must be in place before sampling and data analyses commence. Additionally, Standard Operating Procedure ("SOP") documents need to be developed for the various LISST sampling devices. Sampling and analysis plan development should not be an "iterative" process.
2. QAPP and SOP documents should be developed with assistance from EPA New England Regional Laboratory's Quality Assurance Branch.
3. None of the LISST sampling devices have detection limits below 10 milligrams/liter ("mg/l"). All initial calibration measurements for the river cross section must be

accompanied by laboratory analyses for TSS with a lower detection limit. Standard Method 2540D has a detection limit of 4 mg/l and should be used for this analysis.

4. The data analysis plan must be supplemented to include the following elements:
 - Location of data
 - Data backup plan
 - Monthly analysis of data
 - Data Quality Control/Validation procedures
 - Location of calibration reports along with validation reports
 - Location of laboratory analysis data along with validation reports
 - Laboratory analyses must be accompanied by the requisite QA data including standard reference material for calibration, field and lab blanks, matrix spikes and duplicate samples.
5. It is unlikely that a single year of data (2012) will be sufficient to determine long-term trends. 2012 may not be a representative year for sediment transport based on weather, flow alteration, construction activity, etc...
6. What are the calibration procedures for the LISST samplers? These measurements need to be bracketed monthly with laboratory analyses. What are the standard errors associated with these samplers?

Finally, the December 22, 2011 Updated Plan does not call for the submission of a final report until December 1, 2015. The submitted report shall include schedules for the implementation of the recommended procedures, protocols, and alternatives. EPA Administrative Order Docket No. 10-016 will remain open until the approved measures are implemented.

If you have any questions regarding these comments, please contact Michael Fedak at 617/918-1766. Legal questions should be directed to Michael Wagner at 617/918-1735.

Sincerely,



Denny Dart, Manager
Water Technical Unit
EPA Region 1

cc: Robert McCollum, MassDEP WRO